

1

2

3

4

5

6

7

8

9

10 **TITLE: STRING INSTRUMENT CHINREST PAD SYSTEM**

11 **BACKGROUND OF THE INVENTION**

12 1. Field of the Invention:

13 This invention pertains to musical instruments, and more particularly to chinrests
14 used with string instruments.

15 2. Description of the Related Art:

16 The violin, in the most general sense, is a musical instrument that vibrates when
17 played. The degree of vibration and resonance of the instrument is directly related to the
18 degree that the wood is allowed to vibrate freely. Anything that clamps onto the body of the
19 instrument, particularly the top and bottom surfaces, will dampen or impede vibration.

20 A chinrest is a traditional part of a violin or viola, which allows the player to rest his
21 or her chin while playing, without the chin touching the instrument. Normally, the chinrest
22 includes a black, curved chinrest member made of plastic or wood that is positioned over the
23 top surface of the instrument. The chinrest member is held in position by two clamping

1 elements. Each clamping element includes an upper metal rod, a lower metal rod, and a
2 turnbuckle. During installation on the instrument, the chinrest member is positioned over the
3 instrument so that its flat support surface located on its bottom surface rests on a flat pad.
4 The flat pad partially rests on the angled upper edge, but mostly rests on the top surface of the
5 instrument. Because the upper edge is angled, the flat pad and chinrest member have a
6 tendency to slide inward toward a flat region located immediately adjacent to the angled
7 upper edge and medially to the instrument's sidewall. When the flat pad rests on the flat
8 region and onto the top surface of the instrument, vibration is impeded.

9 The lower metal rod used with each clamping element includes a flange designed to
10 capture the angled lower edge of the instrument. When the chinrest member slides inward,
11 the upper and lower metal rods, upon which the turnbuckle rotates, contact the upper and
12 lower edges of the instrument, which will impede vibration and can potentially cause damage
13 to the instrument.

14 15 SUMMARY OF THE INVENTION

16 It is an object of the present invention to provide an improved chinrest pad system
17 that can be used with a standard chinrest that securely holds the chinrest on the instrument in
18 an optimal position for maximum vibration.

19 It is another object of the present invention to provide such a pad system that prevents
20 the chinrest from sliding on the instrument while being played with minimal compression
21 forces applied to the instrument.

22 It is another object of the present invention to provide such a pad system that prevents
23 the metal rods used with the clamping elements from contacting the upper and lower edges

1 and impeding vibration and potentially causing damage.

2 These and other objects of the invention are met by a chinrest pad system disclosed
3 herein designed to securely hold a standard chinrest used on a string instrument that
4 minimizes the clamping pressure and dampening of vibration, and prevents damage by
5 preventing the metal components from touching the sides of the instrument. The system
6 includes an upper resilient pad disposed between the support surface of the chinrest member
7 and the top angled surface of the instrument, and at least one lower resilient pad disposed
8 between the lower flange on the lower metal rod and the bottom angled surface of the
9 instrument. The upper and lower pads are specifically designed to partially bend around and
10 engage the instrument's upper and lower edges, respectively. Each pad also includes a rear
11 extending lip that extends rearward and prevents the metal rods from contacting the upper
12 and lower edges. Each pad includes an inside surface designed to match the curvature of
13 instrument's surface immediately adjacent to the edge. The opposite outside surface of each
14 pad is designed to match the angle of the adjacent surface on the chinrest member and flange.
15 The width of each pad is sufficient so that each pad is centered over the sidewall of the
16 instrument so that the compression forces exerted by the support surface and flange are
17 aligned with the sidewall's transverse axis.

19 **DESCRIPTION OF THE DRAWINGS**

20 Fig. 1 is a side elevational view of a violin with a standard chinrest with the chinrest
21 pad system used thereon.

22 Fig. 2 is a rear elevational view of the instrument with the chinrest pad system shown
23 in Fig. 1.

Fig. 3 is a side elevational view of the chinrest pad system more clearly showing the upper and lower pad aligned over the transverse axis of the instrument's sidewall.

Fig. 4 is a bottom plan view of an elongated upper pad.

Fig. 5 is a top plan view of an elongated lower pad.

Fig. 6 is a perspective view of the elongated lower pad used with an elongated lower clamping member.

Fig. 7 is a perspective view of a single triangular-shaped lower pad used on a single lower clamping member.

DESCRIPTION OF THE PREFERRED EMBODIMENT(S)

There is shown in the accompanying Figs. a string instrument chinrest pad system 10 designed to be mounted on the rear surface of a string instrument 90, such as a violin, that overcomes the problems associated with chinrest designs found in the prior art.

The system 10 includes an upper pad 15 and a lower pad 25 specifically designed to be used under the flat support surface 34 found on a typical chinrest member 32 and over the lower flange 47 used with a standard clamping element 40 used with the string instrument 90, respectively. The pads 15, 25 are specifically designed to partially engage the instrument's upper and lower edges 93, 97 and to conform to the adjacent top and bottom surfaces 92, 96 prior to applying a compression force so that the chinrest member 32 does not move. The outside surfaces 18, 28 of the pads 15, 25 are also designed to match the adjacent surfaces of the support surface 34 and the lower flange 47, respectively, to prevent movement of the chinrest member 32.

As shown in Fig. 3, the upper pad 15 includes an inside surface 16, an outside surface

1 18, a front surface 17 and a rear surface 19. In the preferred embodiment, the upper pad 15 is
2 a slightly curved, rectangular structure with parallel front and rear surfaces 17, 19,
3 respectively, that match the curvature of the upper edge 93 on an instrument 90. As
4 mentioned above, the inside surface 16 is specifically designed to match the curvature of the
5 section of the instrument's top surface 92 immediately adjacent to the upper edge 93. The
6 rear surface 19 is substantially perpendicular to the outside surface 18. A short segment 16A
7 of the inside surface 16 adjacent to the rear surface 19 is horizontally aligned, thereby
8 creating a short lip structure 20 that extends rearward from the upper edge 93.

9 The inside surface 26 of the lower pad 25 is specifically designed to match the
10 curvature of the instrument's bottom surface 96 immediately adjacent to the lower edge 97.
11 In the preferred embodiment, the outside surface 28 is perpendicularly aligned with the front
12 and rear surfaces 27, 29, respectively. The rear surface 29 is substantially perpendicular to the
13 outside surface 28. The front and rear surfaces 27, 29 are curved outward, as shown in Figs.
14 5 and 6. Like the upper pad 15, a short segment 26A of the inside surface 26 adjacent to the
15 rear surface 29 is horizontally aligned, thereby creating a short lip structure 30 that extends
16 rearward from the lower edge 97 of the instrument 90. When assembled, both lip structures
17 20, 30 extend rearward to prevent the lower metal rods 46, 46' used with clamping elements
18 40, 40' from contacting the lower edge 97 and causing damage.

19 The two pads 15 and 25 are also sufficient in width so that they are centrally aligned
20 over the transverse axis of the instrument's sidewall 99. This ensures that the compression
21 forces exerted by the chinrest are applied to the sidewall 99 and not to the non-support
22 sections of the top and bottom surfaces 92, 96.

23 Figs. 1 and 2 more clearly shows the side elevational view of a violin 90 with a

1 chinrest mounted thereon that uses the pad system 10. The violin 90 includes a top surface
2 92, a bottom surface 96, a sidewall 99, an upper angled edge 93, and a lower angled edge 97.

3 The portions of the top and bottom surfaces 92, 96 located adjacent to the upper and lower
4 edges 93, 97 first curve inward, then flatten, then curve outward towards the wider section of
5 the instrument 90. The upper and lower angled edges 93, 97, respectively, are located
6 directly opposite each other on opposite sides of the instrument's sidewall 99.

7 During use, the chinrest member 32 is positioned over the top surface 92 of the
8 instrument 90 to comfortably receive a user's chin when playing. The chinrest member 32
9 includes a flat support surface 34 that rests against the top surface 92 of the instrument 90. As
10 shown in Fig. 2, attached to the rear surface 33 of the chinrest member 32 are two upper
11 metal rods 42, 42' respectively, that in turn connect to the top end of two turnbuckles 44,
12 44'.. Attached to the opposite end of the turnbuckles 44, 44' are L-shaped lower metal rods
13 46, 46', respectively. Disposed between the two lower metal rods 46, 46' is an elongated
14 flange lower 47 designed to engage the bottom surface 96 adjacent to the lower angled edge
15 97. The turnbuckles 44, 44' both include opposite internal threads (not shown) that enable
16 them to move over the rods 42, 42', 46, 46', respectively, to tighten or loosen the chinrest
17 member 32 and lower flange 47 on opposite surfaces of the instrument 90.

18 Fig. 7 shows a second embodiment of the lower pad 80 used with a single lower
19 clamping member 75 that includes a small, single lower flange 77. The lower pad 80 is
20 triangular with straight front and rear surfaces and two curved side surfaces designed to
21 match the overall shaped of the lower flange 77. The inside and outside surfaces 81, 82 of the
22 lower pad 80, respectively, are identical in cross-section to the inside and outside surfaces 26
23 and 28, respectively, on the lower pad 25.

1 In the preferred embodiment, the upper and lower pads 15, 25, and 80 are made of
2 natural or synthetic elastic material approximately 1/8 inch thick. On the first embodiment,
3 pads 15 and 25 measure approximately 2-1/2 inches in length and approximately 1/2 inch in
4 width. On the second embodiment, the lower pad 80 measures approximately 1/2 inch in
5 width along the rear surface, approximately 1/4 inch in width along the front surface, and
6 approximately 1/2 inch in length.

7 Using the above described pad system 10 a method of attaching a chinrest 8 to a string
8 instrument 90 is provided comprising the following steps;

9 a. selecting a chinrest 8 that includes a chinrest member 32 with a support surface 34,
10 two adjustable clamping elements 40, 40', each said clamping element 40, 40' includes at
11 least one upper metal rod 42 that connects to said chinrest member 32, a turnbuckle, and a
12 lower metal rod 46 that includes a lower flange 47

13 b. selecting an upper pad 15 that includes an inside surface 16 that matches the
14 curvature of the top surface 92 of a string instrument 90 and a flat outside surface 17, said
15 upper pad 15 also including a rearward extending lip structure 20 that prevents said upper
16 metal rod 42 on said clamping element 40 from contacting the lower angled edge 97 of the
17 string instrument 90;

18 c. positioning said upper pad 15 over said instrument so that said outside surface 27
19 is disposed under said support surface on said chinrest member 32;

20 d. selecting a lower pad 25 that includes a flat outside surface surface 28 and an
21 inside surface 26 that matches the curvature of a lower angled edge 97 and adjacent surface
22 96 of said instrument 92, said lower pad 25 also including a rearward extending lip structure
23 30 that prevents said lower metal rod 46 or 46' on said clamping element 40, or 40' from

1 contacting the lower angled edge 97 on said instrument 92.

2 e. positioning said outside surface 28 of said lower pad 25 on said flange 47 on said
3 clamping member 40; and,

4 f. positioning said chinrest member 32 over said instrument 90 so that said inside
5 surface 16 on said upper pad 15 engages the upper angled edge 93 and adjacent surface 92 of
6 said instrument 90;

7 g. positioning said clamping member 32 so that said inside surface 26 of said lower
8 pad 25 engages the lower angle edge 97 and adjacent surface 96 of said string instrument 90;

9 h. adjusting said clamping element 40 until said chinrest member 32 is held securely
10 on said instrument 90.

11 In compliance with the statute, the invention described herein has been described in
12 language more or less specific as to structural features. It should be understood, however,
13 that the invention is not limited to the specific features shown, since the means and
14 construction shown is comprised only of the preferred embodiments for putting the invention
15 into effect. The invention is therefore claimed in any of its forms or modifications within the
16 legitimate and valid scope of the amended claims, appropriately interpreted in accordance
17 with the doctrine of equivalents.
18